

REMARKS

This amendment is in response to the Office Action of October 3, 2008 in which claims 1-44 were rejected.

Independent claims 1 and 24 (and their dependent claims 2-3, 9-13, 18, 25-31, 38-40 and 42-43) are rejected under 35 U.S.C. 102(b) as being anticipated by *Salatino et al* (U.S. Patent No. 5,862,248). In addition, dependent claims 4, 14, 15 and 19 are rejected under 35 U.S.C. Section 103(a) as being unpatentable over *Salatino et al* as applied to claims 1 and 2, further in view of Benkley (U.S. Patent No. 7,099,496). Additionally, dependent claims 5-8 and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Salatino et al* as applied to claims 1 and 31 above, and further in view of machine translation of the text of *Watanabe* (JP 06-1 04641A) supplied by the USPTO as an attachment to the Office Action of October 3, 2008. JP-06-104641 was cited by the Applicant in the IDS of December 27, 2007 on account of the Japanese Office of September 27, 2007 in a corresponding foreign application..

*Salatino et al* seems to disclose a fingerprint sensing device including an integrated circuit die, a body of encapsulating material surrounding the integrated circuit die, and an electrically conductive member or frame being mounted to the body of encapsulating material adjacent an opening therein.

*Watanabe* discloses a surface mount type oscillator using resonators.

In order to make clearer difference between the present invention and the cited prior art (especially *Salatino et al* and *Watanabe*, as well as *Benkley* (U.S. 7,099,496) the applicant has amended first independent method claim as follows (based especially on original claims 1, 8, 9 and 10):

Amended claim 1

A fingerprint sensor arrangement comprising at least one driver electrode and at least one sensor electrode for a capacitive measurement, and an integrated signal processing circuit for the measurement of signals from the electrodes, and interconnecting wiring between the electrodes and the integrated circuit, wherein the arrangement further comprises a substrate of flexible material that forms at least part of said sensor, and the substrate, the at least one driver electrode, the at least one sensor electrode, said signal integrated circuit and said interconnecting wiring are embedded within an integrated module, and wherein said interconnecting wires are metallizations between polymer layers, and said at least one driver electrode and/or said at least one sensor electrode is metallization between polymer layers.

The other independent claim 24 has also been amended consistently. Claims 8, 9 and 10 have been cancelled.

*Salatino et al* fails to disclose that the substrate would be flexible material. On the contrary *Salatino* implies that the “die” is rigid material. For example, by the word “die” it is understood in the context of integrated circuits that it is produced in large batches on a single wafer of electronic-grade silicon (EGS) through processes such as photolithography, whereupon the wafer is cut into many pieces, each containing one copy of the circuit. Each of these pieces is called a die. It is well known that “dies” of this kind processed through photolithography are undisputably rigid. In addition *Salatino* hints to use material to be etched (column 10, line 42), which again implies rigidity (etching is the process of using strong acid or mordant to cut into the unprotected parts of a metal surface to create a design).

Thus, when clearly teaching to use only a rigid die, *Salatino et al* do fail to even hint the skilled person to try any other base material than rigid material. Therefore even looking for a flexible material for the substrate would be a non-obvious course of inquiry to the person of ordinary skill.

Even though *Watanabe* mentions a flexible printed circuit board, it is not obvious to a skilled person to even try to take the flexible printed circuit board of *Watanabe* and apply it to the construction of *Salatino et al*, because *Salatino et al* only teach to use rigid material. In addition, even if thinking to try to apply the flexible printed circuit to the construction of *Salatino et al*, it is not clear to a person of ordinary skill how to apply it, because none of the cited prior art documents give any instructions to a workable embodiment.

In addition, both *Watanabe* and *Salatino et al* fail to disclose that the interconnecting wires are metallization between polymer layers, and the at least one driver electrode and/or the at least one sensor electrode is metallization between polymer layers.

Especially *Salatino et al* fail to teach that the driver electrode and/or the sensor electrode would be metallization between polymer layers in the flexible substrate material. In Figure 13 it is depicted a greatly enlarged schematic cross-sectional view of a contact pad portion of the IC-device of Figure 12 of *Salatino et al*, which also is a greatly enlarged view of the IC-device of *Salatino et al*. It is to be noted that Figure 13 depicts only the tiny contact pad portion (30") of the whole sensor (30), and does not relate to the whole sensor arrangement as is the case with the amended claims of the present application of the applicant.

The difference of the present invention compared to the solution of *Salatino et al* is clear e.g. in Figure 3 of the present Applicant's disclosure, where the driver electrode (321) and the sensor electrode (322) are metallization between two different polymer layers (325 and 365) in the flexible substrate material. In addition, in the present disclosure the electrodes (312, 322) are in direct contact with the two different polymer layers (325 and 365) which is not the case with *Salatino et al*, where the electrodes (54) are not in direct contact (see e.g. Figures 12 and 13) with the passive layers (122, 123) being e.g. silicon nitride, which is kept as a polymer layer by the Examiner. The same applies also to interconnecting wires of the present invention, which are metallization between polymer layers.

Furthermore it should be noted that in reality there is no teaching or suggestion to combine the references of *Salatino et al* and *Watanabe* (which is required: *In re Dembiczak*). If the Examiner should feel otherwise, the applicant respectfully requests the Examiner to point to a specific principle that would suggest such a combination and modification (according to *In re Lee* such a specific principle must be shown for a 103 rejection to be sustained).

However, even in a hypothetical combination of the teachings of *Salatino et al* and/or *Watanabe* the person of ordinary skill would not end up to the present invention described in the amended claims, because the hypothetical combination would fail to result in the interconnecting wires being metallizations between polymer layers, and at least one driver electrode and/or at least one sensor electrode being metallization between polymer layers.

Withdrawal of the novelty and obviousness rejections is requested.

In addition, the Office Action asserts a non-statutory double patenting rejection of claims 1 and 24 over claim 1 of co-pending application number 10/763,805.

At this stage, the amended independent claim 1 of 10/763,805 states as:

*A sensor arrangement comprising at least one sensor, at least one integrated signal processing circuit for the measurement of signals from the at least one sensor, and interconnecting wiring between the at least one sensor and the integrated circuit, wherein the arrangement comprises a substrate, said substrate forming at least part of said interconnecting wiring and said substrate is further arranged to serve as a functional part of at least one said sensor, characterized in that said substrate comprises means for forming a sensor together with a sensor part, wherein said substrate and said sensor part are galvanically separated, and wherein said substrate and said sensor part comprise means for transferring energy*

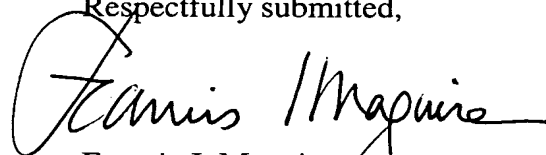
*and measurement information inductively between said substrate and said sensor part.*

Now the independent claims 1 and 24 have been amended as discussed earlier and the Applicant feels that the non-statutory double patenting rejection does not apply anymore, because the amended claims include limitation of claims 8, 9 and 10 which were not rejected by the non-statutory double patenting rejection. Withdrawal thereof is requested.

It is not believed that any extra claims fees are due. If this belief is incorrect the Commissioner is authorized to deduct the correct extra claims fee from our Deposit Account No. 23-0442. Likewise, the Commissioner is authorized to deduct any extension fee due and consider this paper as a petition for the correct extension period, although it is not believed anything is due since it is believed to be timely filed.

The objections and rejections of the Office Action of October 3, 2008, having been obviated by amendment or shown to be inapplicable, withdrawal thereof is requested and passage of claims 1-44, as amended, to issue is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Francis J. Maguire". The signature is fluid and cursive, with a large loop at the end.

Francis J. Maguire  
Attorney for Applicant  
Registration No. 31,391

FJM/lk  
WARE, FRESSOLA, VAN DER SLUYS  
& ADOLPHSON LLP  
755 Main Street, P.O. Box 224  
Monroe, Connecticut 06468  
(203) 261-1234